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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

Water: its History, Characteristics, Hygienic, and Therapeutic Uses.

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Of New York.

(*Continued from page* 484.)

IN NATURAL PHILOSOPHY.

Within the wide range of scientific investigations, there is nothing so pleasing to the contemplative mind, nought that brings as vividly before the imagination nature's certitudes as the various branches of Natural Philosophy. With a clear conception of what is æsthetic in its character, and convinced of the capabilities of universal laws, the student of the past reaps vast satisfaction and obtains a priceless treasure by following, conscientiously, the by-paths of a subtle element; or tracing out for future usefulness the powerful workings of a hidden principle.

Many wonders do exist surpassing strange and full of meaning, but, to the inspired reader of what has been done, a beauteous vista in the happy future holds out tempting prizes for the indefatigable. Perseverance and unimpaired zeal surmount all obstacles. Man may pronounce, in public, what appears most futile for a healthy mind to comprehend; but innate monitors predict the birth of what some century hence, maybe but ten short years, will bring to life, and shed bright lustre on the fortunate, who, reading in some volume, long since out of print, the secret hint and dull suggestion, forces by the principle of mind over matter, what is reaped by generations as a benefit of countless worth.

The use of water as an agent of titanic power or a mild persuasive, never-yielding laborer, is most instructive in its deeply philosophical deductions. For the windmill whose most mighty sweep and useful ends, which are uncertain as the variation of this curious method of time-saving theories, the water wheel is ever ready to respond and work on with even tenor neither more nor less than man dictates. The over-shot or under-shot prove useful as the case demands, or the locality suggests. That simple law of gravity continues to move mighty cupped circumferences with their multiplied smooth cogs, thus crushing iron; rolling out the tenuated wire, and, in some instances, turning out by easy efforts sixty horse shoes every minute.* When the little stream has passed the foundry and busy village; fed the workman's cattle and secured a competency for the rudest journeyman; it still moves on with playful ripple till the genial rays of sunshine purity call up its vapors to the fleecy clouds where it remains in dreamy listlessness till needed for descent upon some lofty region, when again it follows out the laws of nature and pursues its course with gentle murmurings.

In ancient times the aqueduct formed some of the most noted works of mighty Emperors. Cognizant of the vast power of water, when confined to lonesome duties, it became the business of those persons, who secured to city privileges the great blessing of a purest beverage, to protect surrounding neighborhoods from too great overflows of liquid strength.

The Aqua Marcia, in length some sixty miles, displayed the genius of a master mind† when Roman power breathed above subjected forces. Agrippa's baths derived much comfort from the celebrated Aqua Virgo; and the Aqua Claudia, about 46 miles long, will be remembered by the student of antiquity, with feelings of astonishment and emotion of a pleasurable character.‡

* Burden's Factory, Troy, N. Y.

† Frontin., de Aqueduct: Plin. H. N.,—Dion Cass; Vitruv., viii. 3, 1.

‡ Smith, Dict. ant.; Becker, Handb. d. Rom. Alterth.

According to Prof. Anthon's lucid work,* "when all the aqueducts were in operation, the quantity of water must have amounted to 50,000,000 cubic feet." The strictest supervision of such useful and most needful works must have proved no sinecure to the circuitores, tectores, castellarii, villici and silicarii, all subservient to the respected præfecti aquarum. These mighty agents of vitality were esteemed of more importance to the public welfare than the much loved pursuits of war, or the most fascinating arts of peace.

Surely, if the gifted Lamb could say, with truth, the city's parks are its vast lungs; with equal strength, in metaphorical allusion, might we call the High bridge, near New York, with its many pipes and flowing health, the inhabitants' thoracic duct, carrying nourishment to those of feeble constitution and life to the exhausted.

The toggle-joint, employed by workmen, is possessed of countless benefits, and by mysterious principles involving the parallelogram of forces, brings about the happiest results: the steam-press is all-powerful in its purposes—this vapor of water being most accommodating. The lever-press can perform the labor of many men, according to the position of the fulcrum and the length, etc.; but the acme of force, the resultant of exhaustive power, the product of a multiplied and never-yielding influence, is only to be found in the hydraulic-press. By it cannon are most surely tested, and commodities confined within the smallest space. As another proof of the sublime power of water, when an earthly being seeks to confine it to a mercantile existence, a reservoir but *one inch wide*, that is, with the capacity to hold a column of water one inch wide and some fifty feet high, would require as thick walls and demand as careful masonry as if the building were erected to contain a mile square of water with its countless millions of gallons, that is, if it be of the same depth. The simple example of the glass tube one hundred feet high, containing a column of water, and poured into a barrel already full, bursting it, though strongly made, at once explains the phenomenon.

Huge rocks have been torn asunder by the mere insertion of a few wedges left exposed to the weather. The first rain is absorbed by the pores of the wood, and, expanding, an incredible force is displayed, wonderfully energetic and successful as to practical results. Powder, no doubt, would do as much, but the gradual pursuasion of the swelling properties of wood accomplish the desired end more surely, and with less risk of breaking off what was not deemed necessitous.

While molten lead contracts when cool, obedient to the laws of heat, water after reaching the depressing temperature of 28°, its smallest limit, expands accordingly, and when the freezing point has been obtained, just 32°, many a vessel, be it glass or iron, has been fractured by this immense power. The philosophical experiment of dropping oil into a pool of water, and its consequent spheroidal shape, produces much of import to the strict deducer of important fruits from little seeds of thought. The rotundity of shot and the utility of water in arresting its formation are of vast importance in a scientific way, to him who seeks to prove the shape of earth, the magic form of matter as created out of chaos.

Of all the methods employed for the purpose of determining the specific gravity of solids, not excepting the assistance obtained formerly from Nicholson's areometer, since the volumetric assay, and graduated cylinders of recent date, F. Mohr, a man of genius and peculiar skill, has arrived at the conclusion that the simplest is to measure the volume of water displaced, whereas, before, it was the custom carefully to weigh.

As an additional proof of the power of water, in the shape of waves, masses of rock weighing nearly ten tons have been heaped up by the agency of storms, etc., some sixty-two feet above the sea.*

Professor Tyndell, whose imagination is only equalled by his beauty of thought, has expressed the following sentiment relative to the phenomena of waves:

"When the tide advances over a sea-beach on a calm and sunny day, and its tiny ripples enter at various points the clear, shallow pools which the preceding tide left behind, the little wavelets run and climb and cross each other, and thus form a lovely chasing, which has its counterpart in the lines of light converged by the ripples upon the sand underneath. . . . By the action of interference its surface is sometimes shivered into the most beautiful mosaic, shifting and trembling as if with a kind of visible music." Such suggestions to the poetic mind place man upon a footing far above

* Roman Antiquities—Aqueducts.

* Thomas Steveson's (C. E.) Communication to the Royal Society.

the details of a sublunary life. By entertaining meditations of this character, we rise to that pure sphere where we meet, with grateful feelings, a responsive tone in the works of Tieck, and cherish thoughts that exist as rarely as true virtue!

The deep-sea thermometer* reveals most curious facts connected with the temperature of depths and effects of air and light on what is found above the surface of the watery world. In treating of the causes of cold on high mountains, M. Martins remarks that the radiation of mountains is much greater when covered with snow, particularly above where there exists any melting process.† Flocculent snow, however, does not seem to possess this property. With reference to the mechanical theory of heat, again, we find that, in connection with the relations of heat and work, the investigations of Mr. Joule, of Manchester, would be as nothing were the friction of water not included in his investigations. "Joule's Equivalent," for various thermometric scales, in English and French units, cannot fail to be suggestive:

1 English thermal unit, or 1 deg. Fah. in 1 lb. of water, .772 foot-pounds.

1 centigrade deg. in 1 lb. of water, 1389.6 foot-pounds.

1 French thermal unit, or 1 centigrade degree in a kilogramme of water, 423.55 kilogramme-metres.

It is only by the accumulation of such data, and the thorough digestion of equally important statistics, that we learn how to adapt our frames to the endless variety of conflicting elements and conducive principles. Even as regards the separation of the heat and light of the sun's rays in the *eye*, J. M. Janssen,‡ as a result of his experiments, proves conclusively, that *all* the rays of heat are absorbed before they reach the retina—two-thirds by the cornea, and the other third by the *aqueous* humor."

In the analysis of induction sparks, M. Moncel, of France, found, by careful investigations, that on plunging one of the "rheophores" into water, and if the discharge were taken through the fluid, the "luminous atmosphere exhibited singular corruscations."

A most remarkable theory has been maintained by M. Perrot, of Paris, relative to the earth's annual motion, which is far more interesting than the pendulum experiment of M. Foucault, or the more complicated labors of M. Fitzeau. A bucket is suspended in the air. A small hole in the exact centre of its bottom is made; water is then poured in, and a minute quantity of powder strewn on the surface, for the purpose of detecting the course of the current. The careful originator of this interesting experiment ascertained that the current followed the curve very much to the right of a straight line, such as would be found to be the case were the earth standing still. Founding his premises upon these facts, M. Perrot asserts that the earth's rotation may be discovered by watching the course of rivers. Invariably the right bank is pressed upon.

To those enamored of the subject of capillary attraction, the views of Mr. Sorby, relative to the movements of fluids in porous bodies, suggest even electrical phenomena, almost paradoxical in their character. It has been ascertained, in Germany, that ice one inch and a half in thickness, will bear the weight of a man; three inches and a half, a detachment of infantry; four and four-tenth inches will support the passage of eight pounders; five and two-tenth inches, twelve pounders; eight inches, twenty-four pounders, and twelve inches, almost any resistance from above.*

Science has made rapid strides of late respecting the laws of light, electricity, and heat, but the views of Dr. Scott Alison, before the Royal Society, "on the intensification of sound through solid bodies by the interposition of water between them and the distal extremities of hearing-tubes," afford surprising proofs of its value as regards assisting man in clearly demonstrating all the necessary waves of sound as found among the works of learned men concerning the acoustic principle. The phonoscope and hydrophone unfold a store-house to inquiring students. The figures produced by sound, as acting upon water in a vessel, are of a certain size and shape, according to the intensity or pitch.†

Few facts exist that seem more subtle in their nature, more excentric in their composition, than the many different opinions of variously learned men relative to the wave-line theory, that is, the question as to what "became of all the water which a ship removed out of her way?"‡ The following table concerning "the

* The newest is that developed by W. Scott, of England.

† Annales de Chimie et de Physique.

‡ Academie des Sciences.

* Annual of Scientific Discovery, 1861.

† Poggendorff's Annalen.

‡ See J. Scott Russell's Communication before the British Institution of Naval Architecture.

velocity with which the travelling wave moves, and which is found to depend entirely on the depth of the water," may prove of interest to nautical observers:

At	3	feet deep	the wave travels	6	miles an	hour.
"	5	"	"	8	"	"
"	7	"	"	10	"	"
"	10	"	"	12	"	"
"	15	"	"	15	"	"
"	20	"	"	18	"	"
"	30	"	"	20	"	"
"	40	"	"	25	"	"
"	50	"	"	30	"	"

To be Continued.

Hints and Observations on Military Hygiene, relating to Diet, Dress, Exercise, Exposure, and the Best Means of Preventing and Curing Medical and Surgical Diseases in the Army.

By a Hospital Surgeon of Philadelphia.

(*Continued from page* 445.)

Gun-Shot Wounds.—In the order in which we have arranged the subject of wounds, those termed "punctured" and "lacerated" would follow "incised;" but, as both these forms are seen under the head of gun-shot, we shall thus treat them. By gun-shot wounds, we now comprehend all wounds received during the time of battle, made by the projection of hard bodies, the greater part of which are musket-balls.

The causes which produce such wounds, are bodies propelled by gun-powder from engines of an infinite variety of construction and names, which are destined to throw bombs, bullets, balls, or shot. All such bodies travel nearly as quick as light, and more rapidly than sound, so that the shot is received before the explosion is heard.

Their direction is such that the diagonal drawn from the point of departure to the point of their fall, and the parabola which they describe, are so much the greater in proportion to the extent of space over which they travel. This is owing to two principal causes: first, on account of the resistance which the ball meets with on the part of the air; and secondly, on account of the earth's power of attraction. Rounded bodies, such as balls and bullets, at the end of their course revolve upon themselves, or, in other words, upon their axes, and can, for some time, keep themselves in their curvilinear motion.

The consequence of which is, that, as soon as they meet at this distance any body of equal form, they pass over its entire periphery, and, of course, must produce effects different from those which take place when they encounter it at the very onset of their career, and in their original direction. This subject is well understood by the scientific billiard player, and can, on the board, be beautifully illustrated.

Bombs and grenades are spherical bodies of iron, hollow inside, and filled with powder, or a mixture of gun-powder and other materials, the explosion of which bursts their parietes, reducing them to pieces, differing in shape and size, and presenting, most always, irregular cutting edges, with angles of more or less sharpness. The balls are of three kinds, either two and two, united by a bar of the same metal, or by a bar of iron, and are termed bar-shot. The grooved rifle and its hollow cylindro-conic ball are, at present, interesting all military nations, especially our own, owing to its preventing the rotation of the ball, and thus giving greater accuracy to the aim. It is of interest to surgeons, in consequence of the laceration produced by it upon the human body, as well as the injury it inflicts upon bones, splintering or sinking into them, frequently rendering amputation or resection necessary. Balls, also, are of different calibres, varying in weight from half a pound to five hundred pounds. The musket, rifle, and pistol balls are made of lead. The Mamelucks and the Arabians, according to the observations of Larrey, force an iron wire of more or less thickness through them, which converts them into chain-shot, or they leave attached to them the pedicle which they have acquired in the bullet-mould; they also combine with their lead, stones, iron, and copper, in order to render these bullets more destructive.

There are likewise wad and powder wounds, the ball or bullet driving before it into the body, pieces of clothes, leather, money, wad, &c. Gun-shot wounds are characterized by nervous perturbation. It will be found that the bravest man when hit by a ball or bullet will sometimes run like a boy, or weep like a child; this is nervous excitement which they cannot control. It is stated that Gen. Scott, when wounded at Lundy's Lane, wept, but still he was brave enough to take Vera Cruz. Another form of this nervous excitement will be seen when rank after rank will leave the battalion to

relieve nature of an excessive secretion. This is also the case in duels.

Appearance of Gun-shot Wounds.—This will depend upon the shape, velocity, distance, &c., of the missile, and the position and situation of the part wounded. The wound of entrance is a contused one; its edges are inverted, and surrounded with a blue areola, this blueness arising from the congestion of superficial capillaries. In some cases, when the weapon is near, the powder is driven into the wound, and produces a stain. This, as a medico-legal matter, is important, as by it we can tell sometimes where the person was standing when shot.

The wound of exit is a lacerated one, having its edges everted and torn. The difference in the form of the wound is explained by a law in physics; bodies passing from a rarer medium (the air) into a denser (the body) push it before it, or from a denser into a rarer, break the parts before them, therefore, by the kind of wound, we can determine the direction of the ball.

Of the Pain of Gun-shot Wounds.—Some of the books on military surgery affirm that gun-shot wounds produce no pain. Guthrie says they are intensely painful. In one instance, in a case of wound in the abdomen, it required sixteen grains of opium to relieve the pain; in another instance of a shot through the muscle, in which no large vessel or nerve was torn, there was but little pain. If, however, nervous cords are torn, tendons or aponeurosis lacerated, or pulled from their attachments, or the ball or bullet pierces the bone, such gun-shots wounds cannot fail to cause a great amount of pain and agony.

Hemorrhage in Gun-shot Wounds.—Bleeding in gnn-shot wounds is usually slight, but they are apt to be complicated by ecchymosis or an infiltration or effusion of bloody fluid into the cellular tissue; this takes place in consequence of the rupture of a blood-vessel, chiefly venous, more or less deeply situated. The simple enlargement of the wound will sometimes remove this, or the application of scarified cups, if there is no wound or solution of continuity. If, however, a large vessel be wounded, blood, as before stated, will well out with each pulsation of the heart; the wound, in such a case, must be enlarged, so as to lay bare the arteries and apply the ligatures; if there is much retracted, include the cellular tissue, and even the muscular fibre, but, if possible, draw the artery out by the forceps or tenaculum, and then apply the ligature. This latter, if practicable, should always be preferred, but never let your patient bleed to death because you cannot get the artery free.

To find the Direction of Gun-shot Wounds.—Place the parts as nearly in the same position as when the wound was inflicted. You may have obtained the wound of entrance, and also of exit, and still the ball may remain in the body, this is done by the ball splitting in two pieces, one remaining by coming in contact with cartilage, bone, &c., while the other part passed out. There may be but the wound of entrance, and no foreign body in the wound; for instance, a ball strikes against the cartilages of the ribs, imbeds or indents them, but their resiliency forces it out again.

When bullets are driven with force, and strike the human body in their original direction at no great distance from the point of their departure, they perforate, lacerate, and even carry the parts off entirely. If, on the contrary, they are near the termination of their career, or are spent, they revolve upon themselves without changing the elastic or membranous coverings which yield to their impulse, while the subjacent compact or fragile parts are ruptured, lacerated, or broken. To these circumstances is due the fact of many sudden deaths, which were in olden times attributed to the pressure of air displaced and agitated by the ball, (called the wind of the ball.)

If the ball is of large calibre, it will carry away, and unequally cut off the limb. If the ball is small, and strikes only the fleshy part, it will pass through it; if large, this alone is torn off, leaving the bones denuded. As soon, however, as it meets with any obstacle in its way, the ball changes its form and direction, and makes several turnways and windings, and becomes lodged in either the most elevated or the most oblique part of the limb.

Treatment of Gun-shot Wounds.—The first thing to be attended to, is the constitutional treatment, to allay the nervous prostration and perurbation by warm wine and water, aromatict spirits of ammonia or brandy. The next rule according to Larrey, is "commencing with the dressing of the most simple and least important injury, to proceed with that of a more serious one, and so in succession to the most important, more particularly if this should require a

painful operation. The reasons for this method of proceeding is that if a beginning were made with the last wound, the patient might be seized with syncope after the operation, which would render it necessary to postpone the dressing of the other wounds; or perhaps, frightened and fatigued by the greater or lesser intensity of the pain, he might decline any further assistance; whilst on the other hand, the cares bestowed upon the more trifling wounds being less painful, and encouraged by it, has not near so much to dread the treatment of the more serious ones."

Where no foreign bodies are to be removed, the dressing of the gun-shot wound requires a simple slightly tonic and compressive treatment. To accomplish which, a linen rag or piece of patent lint with holes in it, is soaked in camphorated water, or sweet oil, or even in salt water, in which there is a small portion of the solution of the acetate of lead, with or without a solution of opium. This should be immediately applied, and the parts secured by compress and roller, taking care that the pressure of the bandage employed be uniform.

Osteo-Carcinomatous Tumors.

By Jas. E. Garretson, M.D.,

Of Philadelphia.

DISEASES OF THE MOUTH—CONTINUED.

This paper, which relates to cancerous growths proper of the jaws, concludes our consideration of tumors of these bones.

In my last paper I referred to various tumors, differing as species are concerned, agreeing as to a general classification, and which I tried accurately to describe, giving to them, as a basis name, Osteo-Sarcoma, and which great class of tumors, I succeeded, I trust, in relieving of some obscurity.

The class we are now to consider—the heterochte—is one which has been equally divided and sub-divided, specified and synonymed with the preceding—so much so indeed as to elicit from most authors a confession, as to the confusion which renders any proper and simple description almost impossible.

Much thought on the subject, and not a little experience, especially clinical, has suggested to my mind that there is in reality but a single cancerous affection of the jaw, or perhaps I will be better able to make myself understood, if I say two; all peculiarities, modifications, and associations are but pathological features developed by age, or circumstances in the one or the other of these general classes—so that, if I am right in this tenure, when I describe one or at best two conditions, with their associations, I shall, for all practical purpose, have told all that need necessarily be known for the general guidance of the surgeon. I think so at least.

Carcinoma is a word gotten from the Greek, "καρκινος," signifying a crab. According to the classification of Fische, which it suits our purpose to adopt—it applies to a family of diseases which embraces the different forms of cancer.

Osteo-carcinoma is a term then, which I will adopt to apply to any truly cancerous tumor of the maxillary bones—it embraces the two species which I have said are the only malignant growths found associated with these parts. These species are the types medullaris and scirrhus.

Scirrhus of the maxilla is an unfrequent condition—a quite rare disease. Medullary matter is the pathological feature which characterizes the mass of the carcinomatous tumors of these parts. So constant, indeed, is its presence, that it would scarcely be amiss, to say that medullary disease is the only cancer of the jaws.

I suppose I have, in the course of my observation, met with two decided cases of scirrhus of the maxillary bones, both being associated with the superior jaw; certainly I have not seen more than two cases. The disease when it presents itself similates in many features—it differs, however, in having associated with it a marked cachexia, in having no distinct sepation from surrounding parts, and in being attended with sharp and lancinating pains.

It appears first as a hard mass, a little lump perhaps, associated with the integuments, moveable for a time, but soon becoming fixed, and implicating all the surrounding parts, "casting out its claws," as the people have it. If, after amputation, a scirrhus mass is bisected it is found to resemble, in its stroma, the substance of a turnip. "The hardness of scirrhus," says Mr. Paget, "when compared with that of other tumors, is in most cases extreme; it is about equal to that of fibrous cartilage, and is associated with a corresponding rigidity, weight, and inelasticity. A characteristic appearance is a slight concavity assumed by these

tumors on section, and which, as remarked by Mr. Paget, belongs to no other tumors." It differs again on section from the sarcomatous tumors, in having no distinct grain or fibrous plan of structure."

In microscopic structure it varies still more markedly; its cells being not constant, but heteroclite. Scirrhus, like medullary carcinoma, tends, but much more slowly, from the occult to the open stage.

With these few remarks on scirrhus, which will serve at least to exhibit that I am not unaware that such form of cancer does occasionally exist in the jaws, we will pass to the medullary form, and which I will now assume is the carcinoma proper, and peculiar of these parts.

Miller has, however, several sections on malignant diseases of the maxillary bones, and which he considers under the heads osteo-cephaloma, osteo-carcinoma, osteo-melanosis, and osteo-cancer. Against these subdivisions I shall not take the liberty to object. The reader must judge for himself whether or not they are only one and the same disease, with modifications.

Our subject can, I think, be divested of much obscurity, if at this point we stop for a single moment to consider the meaning of certain terms, which long usage have so associated with cancerous conditions, that I am sure they must, years ago, have gotten beyond the meaning originally intended for them.

Take for example the term fungus hæmatodes. I have used it several times in this series of papers. It is a term used freely—and loosely—by surgical writers, and is generally accepted to mean most malignant cancer. I do not say that every reader and every writer does not known that such an application is unjust, I only say almost universal acceptation make it mean cancer. Let us analyze the term. It is made out of the Greek roots αἷμα, signifying "blood," and ὠδες, meaning "appearance,"—of bloody appearance—any and all granulations being of bloody appearance, are, therefore, fungus hæmatodes. If, however, it was meant to be applied strictly to pathological features, we might employ it learnedly to express the common proud-flesh of an adynamic ulcer.

Writers use it as a synonym of medullary cancer, but when they describe fungus hæmatodes, they get a condition and not a principal. They might, with the same propriety, use the word suppuration as a synonym of inflammation. Fungus hæmatodes is a phenomenon, as suppuration is a phenomenon, as pain is a phenomenon, attending a cause. Such a manner of describing disease cannot but confuse the student, and make our nomenclature unreliable as a source for finding expressive terms; terms that shall be patent to the scholar everywhere and under all circumstances. Thus, Mr. Hey, who was the originator and maker of the term fungus hæmatodes, employed it as the representative of the open state of medullary cancer; it certainly well expresses the phenomenon, but has no more special meaning. Alibert calls all the hæmatocies by this name, and as they are all of bloody appearance, certainly he is justified in so expressing himself. Dupuytren employs the term in describing the erectile tumors. While Graafe presses it into service in describing the "Telangiectasiæ." Thus, as a first example, we see that there is no peculiar disease of the jaws which can be called fungus hæmatodes. We do not, however, eschew the term; we cannot do without it, as it represents a feature.

Let us take a second term. I instanced Miller's fourth classifictaion of cancer of the maxillary bones—the osteo-melanotic. Now, the term melanosis refers to pigment, and signifies black or colored structure. I will not say that Miller errs in this classification, but I will simply note down what Mr. Paget says concerning these colored cancers:

"The melanotic or melanoid cancers are, (says Mr. Paget,) according to my experience, with very rare exceptions, medullary cancers modified by the formation of black pigment in their elemental structures.

"On this long-disputed point, there can, I think, be no reasonable doubt. I have (he says) referred to a case of melanotic-epithelial cancer, (see his lectures on Surgical Pathology, page 582;) but with this exception, I have not seen or read of any example of melanosis or melanotic tumor in the human subject, which might not be regarded as medullary cancer with black pigment."

Here, I think, is exhibited, quite satisfactorily, the fact, that the classification is an unnecessary, not to say an unjust one; that the deposit of pigment is not the disease, but merely an accidental feature. May I not then be permitted to suggest that the term, in the special sense used by Miller, may be dropped without detriment to nomenclature.

The osteo-cephaloma of Miller is medullary cancer.

Osteo-Carcinoma. — I have given the derivation of this word, and exhibited its character as a noun of multitude.

Miller, in his classification, thus writes:— "Osteo-carcinoma is comparatively rare; when it does occur, it is usually as a secondary symptom of malignant cachexy—the primary indication of which has been the formation of carcinoma in the soft parts."

If, in this classification, Miller is compared with other authors, his meaning will be, indeed, difficult to make out. I am sure that, for my part, I do not know what kind of cancer he alludes to. If he had not so specially classified the disease, I would suppose that he meant the same as Fuchs; but then carcinoma, as Fuchs employs the term, and as we here follow him, is not a very rare condition; but, on the contrary, unfortunately is of most frequent occurrence. I would ask, then, if it does not seem that this class of Miller's may also justly be ignored?

Osteo-Cancer.—This is another classification. It is used to represent a malignant ulceration of bone. The only objection I would urge against this term is, that it seems to me as making an unnecessary class, for it would seem hardly probable that ulceration, under any circumstances, could justly be described as a primary lesion. If, then, it is a secondary condition, it is only a phenomenon, and can have no claims to special classification—the disease, or rather condition, would be carcinoma in a state of ulceration, and it seems to me that, if we should describe it as ulcerating carcinoma, we would give it all proper signification, while at the same time we should have one less of these special phrases.

Synonyms.—To these, when learnedly made, no objections, perhaps, may be urged; so many names for one thing is, without doubt, confusing to the student; but, then, this is a matter which time and study make familiar to him, and, more than this, reasonable and proper.

I would have my reader, then, infer that if, in the study of malignant diseases of the jaws, he will agree with me to throw entirely aside the unjust nomenclature which so surrounds the subject, and with me approach the study upon general principles alone, that he may, from a single stand-point, at one glance take in the whole of his subject.

And, first, to return to what I have alluded to as the persistent type—medullary matter. This form of carcinoma is named from its resemblance to brain substance. Its synonyms are many, generally good, but a little confusing when associated with degenerating sarcoma; but on this point I hope my reader is sufficiently fortified.

I have remarked that one classification made by Miller of the cancerous tumors of the jaws is osteo-cephaloma; this I said was a synonym to medullary, meaning the same thing. I have said, too, that, with an exception mentioned, the medullary type is the only form of carcinoma of the maxillary bones. Now, in Mr. Miller's book is a comparison which he has drawn between osteo-sarcoma and osteo-cephaloma; the comparison is in ten counts—if the reader will closely scan them, he will truly have his subject in a nut-shell.

1. Says Mr. Miller, osteo-sarcoma is seldom found prior to adult age. Osteo-cephaloma may occur at any period, and is as frequent in the adolescent as in the adult.

2. Osteo-sarcoma is usually attributable in its origin to external injury. Osteo-cephaloma is most frequently of spontaneous origin.

3. Osteo-sarcoma is slow and gradual, and more or less uniform in its growth. Osteo-cephaloma is much more rapid, and tends to enlarge unequally, growing chiefly at those points where there is least mechanical resistance.

4. Osteo-sarcoma usually is almost, and sometimes altogether, painless, unless when some nervous trunk or plexus is compressed; osteo-cephaloma, from the first, is attended with severe lancinating pain.

5. Osteo-sarcoma is firm, and yields but little to the touch; even rude pressure is scarcely painful; an obscure crepitus is often felt. Osteo-cephaloma is soft and elastic, from an early period; the shell of bone, and all other remains of the original texture soon becoming merged in the medullary formation. It is elastic, and affords no crepitus, when an original tumor, and pain is aggravated by compression.

6. Osteo-sarcoma entails but little disorder of the general health. Osteo-cephaloma is attended by marked cachexy even from the beginning.

7. A casual abrasion of the skin, or mucous membrane investing an osteo-sarcoma, shows a simple character, and may be brought to heal under ordinary treatment. A similar breach in the surface of an osteo-cephaloma does not

heal, but widens more and more, and becomes the site of fungus protrusions.

8. Osteo-sarcoma does not invade the neighboring tissues, but pushes them aside by its expansion, and abides within the bone in which it was first developed. In the upper jaw, for example, it remains limited to the expanded confines of the antrum, and at those points where the bony and ever membranous parietes are deficient, there is no ulceration followed by fungus protrusions, but only a moderate increase of growth in a lobulated form, with or without a rawness of surface. Osteo-cephaloma, on the other hand, pushes no texture much aside, but early involves all; the antrum is soon passed beyond, and the base of the cranium is affected, even before much appearance has been made externally. Whenever deficiency of the investing texture occurs, ulceration and fungus growth are sure to follow.

9. Osteo-sarcoma long continues in the occult condition. Breach of the surface, when it does occur, does not extend rapidly, and evinces no malignancy of character. The discharge is purulent or puriform, not profuse. There is no tendency to hemorrhage, unless by accidental injury, and then it is slight, and easily restrained by pressure. Osteo-sarcoma soon passes from the occult to the open state. The ulcer spreads and is obviously the seat of malignancy. Discharge is profuse, fetid, and bloody. Hemorrhage is not unlikely, of spontaneous origin, and little amenable to control.

10. Osteo-sarcoma does not spread, either by contiguity in the tissues, or remotely by the lymphatics. Osteo-cephaloma does both; at an early period the lymphatics are manifestly and hopelessly involved.

Let the reader not forget, however, the tendency of sarcoma to pass into carcinoma, and that there is not, unfrequently, in the history of the former, a period in which it is difficult to say whether the simple or malignant structure predominates.

Practically, says Mr. Miller, it is of the utmost importance that we should be able to distinguish between osteo-sarcoma and osteo-cephaloma, each is not of unfrequent occurrence, and each requires distinct rules of treatment.

Osteo-sarcoma admits of operation till a late period; its extirpation may be fearlessly attempted, with a good hope of success, even after the tumor has an enormous bulk, and experience has fully shown that the operation, though it may be bloody and severe, yet seldom terminates but in a fortunate issue. A case figured in his surgery, page 426, in which an operation resulted in a permanent cure, would seem to encourage procedure against any such growth.

Osteo-cephalomatous tumors are, on the contrary—I would speak my experience if I were to say—not at all amenable to treatment of any kind. Miller thinks they might be operated upon successfully at an early period, but I must say I never knew one cured. This assertion implies, however, that the diagnosis has been correct—there are so-called medullary cancers cured every day by the most brazen quacks. Cancerous deposits are so evidently the work of systemic conditions, that when you remove a part containing the local disease, you seem to have but exposed channels, which are engaged in bringing to the bulk fresh materials—you cannot get beyond the disease, all adjoining parts are more or less infiltrated with the materiæ morbes.

"I entirely differ, says Mr. Hancock, from Mr. Stanly and Mr. Liston, that medullary sarcoma commences in the antrum of Highmore, and extends backward to the pterygoid processes; but, on the contrary, from what I have observed, I firmly believe that the disease commences in the cancellated structure of the body of the sphenoid bone, and bones at the base of the cranium; and that, however early we may perform the operation, we never succeed in eradicating the mischief, which is sure to return at a longer or shorter period according to circumstances."

It strikes me that if Mr. Hancock had only for one moment considered the constitutional relations of cancer, he need not have been in dispute with Mr. Liston or Stanly; for my own part, I know that medullary disease does begin in the maxillary sinus, for I have met such cases, and so also may it begin, as its localization is concerned, almost anywhere else about the body; the tumor is not the disease, but only the local expression of it.

But, however this may be, I quoted Mr. Hancock's expression, only as it is indicative of a general experience of the difficulty of getting away even all, of what is, apparently, the local disease; and how could it be otherwise, seeing that the tumor is not encysted, being an infiltration as it were.

What is to be done in this disease? I can only answer, let every man use his own judgment. We know the history of the disease, that it tends to ulceration and the fungoid con-

dition; that it becomes so offensive as to make the patient disagreeable not only to his friends, but also to himself; that it is associated with the most unbearable pains, etc. We may be justified in operating for a two-fold reason; first, that we may give to our patient temporary relief; second, in the hope that re-appearance may be in some internal situation rather than the site of removal; thus at least putting out of sight a disgusting mass which it can be of little or no use, to have under manipulative control.

There are, however, general indications, which should always be taken into consideration, and which, being met, may possibly result in good to the patient.

1. As the disease is due to, or accompanied by a perversion of nutrition, an effort should be made to remove any derangement in the nutritive organs, whilst the general health should be built up by the use of tonics and alteratives.

2. To remove or check the local irritation.

3. To continue the constitutional treatment through all stages of the disease.

4. To operate early, if the disease presents such conditions as may be deemed sufficient to justify an operation.

5. To select such means for its removal as will be likely to produce the least irritation.—Smith.

Prof. Smith thinks the greatest amount of good is to be gotten from the chalybeates. He recommends Vallet's mass in doses of from five to ten grains three times a day. In one case, he says, in which he was consulted with a view to operating, and declined on account of the rapid progress of the disease, he suggested the use of Vallet's mass conjoined with the application of the powdered carbonate to the sore, and the patient lived for eight years without the disease having made any very great progress. Justamond, of London, says Dr. Smith, gave from sixty to one hundred and twenty grains of the ammonio-chloride per diem; while Carmichael, of Dublin, expresses himself as having derived much benefit from washing ulcerated scirrhus with a solution of sulphate of iron.

Sulphate of zinc is an admirable local application. A remarkable case, exhibiting its value, is presented in the person of an old woman who has been a habitué of the University of Pennsylvania for the last several years. The local use of this preparation of zinc keeps the disease completely in check. I remember the old woman myself, for at least four or five years. She does not get well, but she certainly does not grow worse.

Chloride of zinc, and solutions of the salt, are favorite preparations. I believe if it were possible to cure a cancer by local means, that chloride of zinc would prove the most powerful antagonist we could bring against it. Its power to arrest phagedenic conditions is wonderful. In chancre, for example, I should scarcely think of using anything else—the medicine has more than a cauterant property; it is peculiarly alterative. If the tip of a pine stick is dipped into the deliquesced salt, and in this state applied to a chancre, you will get for yourself a perfectly healthy ulcer in a week at the farthest. I have often converted these specific into healthy ulcers in three days—chloride of zinc judiciously applied to any indolent, irritable, or bad ulcer, will almost at once change its character.

Concerning the use of this agent in cancer, we have many commendations, particularly from European surgeons, but, as can be readily understood, no where in the range of its application is more judgment required for its proper employment than here, for it is a cauterant, a stimulant, an antiseptic, an alterative. Dr. Zweriner, of Vienna, relates a case of cancerous ulceration of the septum nasi, which threatened to destroy the whole nose. One grain and a half of the salt of chloride of zinc, he says, was dissolved in one ounce of distilled water, and the scabs being removed, the sore was pencilled over several times a day with the solution. At the end of a fortnight, a healthy granulating surface was found underneath the thick crust which covered the sore, and this being occasionally removed, and the solution reapplied, it cicatrized in five weeks.

Mr. Tuson has published some new cases to show the value of certain preparations of chlorine in cancerous affections. In one case which he publishes, there was an extensive cancerous disease of the right breast and neck, which was treated unsuccessfully for a long time, till a paste was applied made of one part of chloride of zinc and three of flour; this was well mixed and moistened with water, and then applied over the whole of the ulcerated parts. The zinc was also given internally: half a grain was ordered every morning in a wineglassful of caraway water. The chloride of zinc paste

was applied again, and when the slough separated the ulcerated surface healed kindly.

The cancerous disposition continued for some time, and the dose of the metal was increased to three-quarters of a grain, and continued for three months. The improvement, although very striking, was not permanent, as the patient suffered a relapse, which ended fatally. The case, however, was sufficient to show that the treatment had made considerable impression on the disease, and especially in healing the open cancer, which Mr. Tuson has found to be the result in several other cases.—*Braithwaite.*

A plan which I have adopted in some recurring growths, and with most satisfactory success, has been the amputation of the tumor, skin and all, and then laying in the wound cotton saturated with the chloride of zinc in solution. In the case of a young lady having a small tumor over the trachea, and which had returned after three removals, I adopted this course with complete success.

The great suffering associated with carcinomatous diseases make necessary the free use of opiates, both locally and systemically. Stramonium, belladonna, aconite, opium, hamamelis, are highly commended. As much as twenty-four grains of the sulphate of morphia has been administered safely during the course of twenty-four hours.

To be Continued.

Styptics upon the Battle-Field.

By JOHN M. MAISCH, Pharmaceutist,
Of Philadelphia.

The following remarks are offered from a pharmaceutical and chemical point of view, and may, perhaps, differ from the views of a surgeon to a certain extent. I will remark here, that it is not my province to make suggestions for the proper treatment of gun-shot and similar wounds, but that I merely desire to speak about what the pharmaceutist is able to furnish in case the field-surgeon feels the necessity of arresting profuse bleeding.

Though bleeding of wounds may occur frequently in the ordinary practice of the physician, there is undoubtedly no place where it can be observed and studied oftener than upon the battle-field. The attention of the surgeon is here claimed by wounds of a slight and of the most fearful character on every part of the human body, from the head down to the foot, and inflicted by all sorts of weapons, from an ordinary knife and a pistol ball, to a sabre and the fragments of an exploded shell.

Whether or not it is desirable in all cases to arrest the bleeding before the removal of a ball or of the splinters of a bone is attempted, I know not; but it is at least very frequently desirable before the attempt is made to dress the wound properly. This object may be arrived at in two ways: either by the ligature of the ruptured artery, or else by the application of some foreign body.

Independently of the difficulty occasionally experienced in getting a sufficient hold of the blood-vessel previously to tying it, the time consumed by this operation is usually more than a surgeon can afford, when many others claim a like share of his attention; want of time, therefore, requires him to forego this mode, and rather have recourse to the second way, that of applying some foreign substance.

Mostly, I should judge from the limited experience I have had, reliance is placed on simple bandaging, perhaps with a suitable compression hurriedly made; but besides the bandage, the substances used for this purpose may be of a twofold nature; they may either act as absorbents—and then their action is merely mechanical—or astringent or a styptic—and then their action is chemical. In both these latter cases the ejection of blood is arrested by its coagulation, and the ultimate object of all mechanical and chemical styptics must therefore be a rapid promotion of its tendency to assume the solid form.

It is well known that the presence of a large amount of oxygen, of atmospheric air, increases the coagulability of the blood, and I am of the opinion that a number of what may properly be called mechanical styptics, merely act in this way—namely, mix the blood with a sufficient amount of oxygen. If some lint is gently pressed upon a bleeding surface, the fibres will readily absorb the blood, and when drawn up by capillary attraction, it constantly comes into contact with fresh portions of atmospheric air, in proportion to the very considerable extension of its surface. This circumstance alone will promote the coagulation, and the tendency is increased by the presence of the numerous fibres, the separation of solid bodies from their solutions being always accelerated by the presence of solid substances, and particularly when very angular or irregularly pointed.

Porous bodies have the power of absorbing a

large amount of gases, among which is, of course, a corresponding proportion of oxygen, if they have been exposed to the atmosphere. This alone will explain the coagulation of blood by substances like spunk, the prepared inner portion of boletus igniarius, though another circumstance must here be considered, exercising, undoubtedly, an influence not to be overlooked, namely, the expansion of spunk in consequence of its absorption of oxygen, and the pressure which it must necessarily exert upon the rupture of the blood-vessels.

Sponge acts in a precisely similar way; but inasmuch as its pores are much larger than that of spunk, it is unable to condense upon its surface so much oxygen, and it consequently when used for absorbing blood, brings the latter in contact with air by spreading it over a greatly extended surface; but in absorbing a liquid, the pores of sponge are filled by it, and a corresponding quantity of air is actually displaced, so that blood, while at first coagulating from the effect of the contact of oxygen with its thin layer, soon presents to the influence of air merely a liquid column, the solidified surface of which is forced upward by the pressure of the blood exuding from the blood-vessels. For these reasons, if sponge is used as a styptic, it must be in the dry state, free from moisture. In this condition it has condensed in its finer pores the largest amount of air, and when becoming moist swells up, and by the pressure it may thereby exert, will be apt to close the blood-vessels and stop their discharge.

Penghas-whar-jambi, — the interesting substance with that barbarous name, derived from a Cibotiune, a fern of Java, consists of thread-like, shrivelled cells, through the walls of which the blood is absorbed, causing simultaneously an expansion of the whole cell. It is possible that simply by this diffusion, the fibrin of the blood may pass into the insoluble state, and that by this action in connection with the influence of oxygen over an extended surface, the exuding blood is sufficiently coagulated to arrest bleeding, though much of the effect is undoubtedly due to the enlargement of the cells, and the consequent pressure upon the ruptured vessel, inasmuch as the simple application of the loose substance has comparatively little effect, and as it has the desired result in the shortest time, if it is rolled together and applied with a gentle pressure. The explanation by many physicians of the modus operandi of these paleæcibotii is that of a simple filtration, whereby the blood is deprived of its fluid portion, leaving the corpuscles behind in a mass. It is most likely that all these causes combined lead to the great activity of this last-mentioned hemostatic, and that filtration exercises its influence likewise in the other cases. It is certain, however, that all the substances named, together with some others popularly employed, like the web of the common spider, act mechanically, and are entirely or nearly destitute of soluble constituents, or of bodies which exert a chemical influence on blood.

Passing over to those styptics which act chemically, we may divide them into those of organic and inorganic origin. The former, almost without any exception, act by virtue of the tannic acid they contain, and are among the crude drugs chiefly represented by galls. Though we find tannin in most of the living plants, there are but few vegetable products, which in their crude state might be considered fit for arresting hemorrhages, and these few are confined to the natural orders of polygalaceæ, (rhatany,) leguminosæ, (catechu, etc.,) rosaceæ, (tormentilla, etc.,) polygonaceæ, (bistorta,) and cupuliferæ, (oak.) Of all these, galls is best adapted for the purpose, on account of containing about 50 pr. ct. of tannin; the pure tannin, that principle of galls and the other astringent vegetables, on which their activity depend, is preferable.

Tannin and the inorganic hemostatics produce a coagulation of the blood, by forming insoluble compounds with the albumen, and it is probable, likewise, with the fibrin dissolved in the serum; the suspended blood corpuscles are enclosed in this precipitate, the bulk of which is thereby considerably increased. If we remember that albumen forms insoluble compounds with the oxides of most heavy metals, the inorganic bodies useful for this purpose are at once pointed out, and it follows as a matter of course, that soluble basic metallic salts are most appropriate for this purpose, inasmuch as on combining with the albumen, no or but little acid is set free, which, when present, in larger proportion, might tend to redissolve some of the precipitated albuminate.

The true cauterizing agents, like nitrate of silver, chloride of zinc, etc., are apt to proceed a step further, and destroy the albumen and other organic bodies, forming insoluble compounds; on account of their being used most generally in the dry form, and because of their

ready solubility, their action is very decided and quick, but likewise circumscribed.

Of the other inorganic compounds, which by coagulating the albumen, act as hemostatics, those of a poisonous nature might have a dangerous result, and are for this reason scarcely used. Such are the salts of copper, lead, mercury, etc. Mostly employed because free from poisonous qualities, and very decided in their action, are the salts of iron, any of which may be used, though with a difference in the result, owing to the readiness with which the salt parts with its base to the albumen. This accounts for the almost instantaneous effect of the basic ferrio sulphate, which, after its discoverer, is named Monsell's salt.

It is prepared from material easily attainable everywhere; it is readily soluble, may be obtained in a solution containing nearly 50 per cent. of its weight, and may be kept in a dry state, attracting but little moisture in ordinary weather. Capable of being applied in both the liquid and dry form, of being readily extended over a considerable surface, and of being not injurious to other unruptured parts, it is particularly fitted for circumstances in which a large number of wounds of the most different kind claim the attention of the surgeon in an unusually short space of time, as is the case upon the battle-field.

There is a possibility of a wounded man bleeding to death upon the battle-field before the surgeon under the pressure of his attentions can find time to bandage his wounds. I conceive that it is in such cases, particularly where styptics might be employed with advantage until after temporary bandaging the wounds, their proper treatment might commence after the removal to the hospital; styptics would not interfere with the subsequent removal of a ball or other foreign body, but would retain a portion of strength, unavoidably lost by the loss of blood, while it is necessary for any possible subsequent operation. In cases of amputations in the open field, few assistants and little time will be allowed to apply ligatures to the various blood-vessels. Would not a powerful styptic be in its proper place here?

The question then would recur on the kind of styptic to be employed.

All those acting mechanically by division and filtration, will lose their properties on becoming more or less saturated with water, or any other liquid; even mere exposure to a damp atmosphere will impair their absorbent powers. Whatever their superiority in some respects over the chemical hemostatics may be, this influence of dampness alone condemns them, and must limit their use chiefly to the hospital. Their bulk is another objection, as is also the difficulty of obtaining the most active ones in sufficient quantity to supply the wants of a large army.

We shall have to fall back therefore on preparations which the pharmaceutist may furnish from his labaratory in any desired quantity, and there is none more adapted for such a purpose than the dry Monsell's salt, and its aqueous solution. It seems to me that every army surgeon ought to have a supply of the former for use in the field, and if it is not included in the army supplies, that he ought to prepare a sufficient quantity, as every place where a fire can be built, will answer, provided a porcelain capsule or a well enamelled kettle is at hand. It may even be considered a question of importance, whether it is practicable to furnish each soldier with a small quantity of this salt, to be used by him for stopping hemorrhage previous to the attendance of the surgeon. One ton of this salt would be more than sufficient for supplying each individual in the army with the requisite quantity.

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The Journal of the Franklin Institute says M. Coste, of Paris, has discovered that water reservoirs, in order to preserve their contents wholesome, ought to be protected against heat and light. He found that the exposed reservoir killed all his young fishes. *We wish it would do the same at Fairmount.*

[*Quere:* If it *does not*, does it not prove the fallacy of M. Coste's conclusion? But would the water be "wholesome" in which fishes could not live? Then why does our scientific cotemporary append such a remark in italics?]

A New Disease lately made its appearance at Brest, in France, consisting of the deposit of a black pigment on the lower lid, which was rubbed off with difficulty, and soon reappeared. Some of the cases were brought before the Academy of Medicine, and the Hospital Medical Society. By the latter, strong doubts were expressed as to the reality of the disease, and after a patient and skillful examination, it was ascertained that the ladies (for almost all those affected with it were women) used a preparation of lamp-black to give their lids that appearance, thus deceiving M. de Mericourt, one of the most distinguished physicians of that city.

EDITORIAL DEPARTMENT.

PERISCOPE.

Weekly Summary of American Medical Journalism.

By O. C. Gibbs, M.D.

THE NEW ANÆSTHETIC—KEROSOLENE.

A few weeks ago we called attention to this article, and gave a summary of Dr. H. J. Bigelow's paper upon the subject found in the *Boston Medical and Surgical Journal*. In July last Dr. Dickinson, of St. Louis, presented a can of the fluid to Prof. E. Andrews, of Chicago. Dr. Andrews says (in the *Chicago Medical Examiner* for August): "This fluid is a hydrocarbon of the series obtained by distillation of bituminous coal. It appears to be the most volatile of its class, having less specific gravity than ether, and seeming to be about equally volatile. The odor is but slight, and in kind resembles that of other coal oils. Dr. Bigelow, of Boston, states that it is as tasteless as water, but this is an error, as it has a distinct, though not strong flavor. On the whole it is much less pungent, both to taste and smell, than chloroform and ether.

It has been my opinion for some years that all the volatile hydrocarbons were anæsthetics, including coal gas, which latter I have proved by experiment.

Prof. Andrews put the anæsthetic powers of kerosolene on trial at once. That trial was not encouraging. Though the patient seemed to take it with comfort and ease, yet when the anæsthesia began to come on slight convulsions ensued. The agent was intermitted, and then its inhalation resumed, and the convulsions were three times manifested at about the same stage of the anæsthesia.

From the trials thus far made it would appear that the kerosolene does not promise any advantages over either ether or chloroform.

Since writing the above, other papers have come to hand that must in some measure modify the opinion just stated. In the *American Medical Times* for August 10th, Dr. Ephraim Cutter, of Woburn, Mass., has an article upon the subject. Having experienced its effects in his own person, he says: "The writer has experimented upon himself and others. In my own case it was given to me by my friend and student Mr. S. W. Abbott. I remained under its influence full half an hour twice. Perhaps four ounces of the kerosolene were consumed in each trial. The first impression is sudden, powerful, and pleasant. Almost immediately I passed into a state of pleasurable insensibility, which at no time was perfect. At least there would be responses to the pricks of a pin, and the muscles were not quiet—although afterward I had no recollection of any such thing. The pulse and respiration were not much altered from their normal rate, the face was rather pale. At the first trial Mr. Abbott states that I travelled about and grasped the napkin on which the kerosolene was found, with my teeth, so strongly that he could hardly get it away. The stimulus of the vapor penetrated the whole frame, even to the tips of the fingers. No unpleasant effects have been experienced from the two experimentations, except a slight headache, which I think may be due to the presence of the adventitious kerosolene.

As you breathe the vapor you seem to float away into a wavy maze, with a sense of complete loneliness. There appears to be but one object in the universe, and that object is yourself. On recovery the first thing seen is deemed the next only existence in the universe. It takes some little time to regain all the faculties." Since the above was written Dr. Cutter has taken the article again. "The insensibility to surrounding impressions was complete, although the eyes were not closed. Pinches and pricks of a pin were unnoticed." Dr. Cutter concludes from the foregoing experiments that "it is proper to infer that kerosolene is a very fit article for further experiment."

In the *Boston Medical and Surgical Journal* for August 22, the subject is further considered. Dr. Joshua Merrill says: "In all cases which have come under my observation, those persons who have inhaled it rapidly recovered when brought to the open air; in from ten to fifteen minutes perfect restoration ensues, and the men are able to resume their employment." . . "In conclusion, if I have brought to your notice a cheap and *safe* anæsthethic agent, my object has been accomplished, leaving to the Society those experiments necessary to establish its value, or otherwise."

In the same journal, and on the same occasion, before the *Boston Society for Medical Improvement*, Dr. H. J. Bigelow concludes his remarks thus: "If this is an anæsthetic of the character it seems to be, at once effectual, agreeable, tasteless, without subsequent flavor or odor, it will supersede ether; and it has certainly, at this moment, a remarkable air of promise." With these remarks we leave the subject this week, but shall try to keep our readers thoroughly posted in regard to the matter.

MORBUS COXARIUS—SPLINTS, ETC.

In our *Summary*, for July 20th, we referred to the splints of Drs. L. A. Sayre, H. G. Davis, and E. Andrews. Remarking upon Prof. Andrews' splint, we said we did not see how he secured immobility of the hip-joint, and asked

the Professor to inform us. In the *Chicago Medical Examiner*, for August, he complies with this request, and says: "In reply to this I would state that immobility of the joint *after excision* is not desired, because the object sought is a ligamentous union of the cut extremity of the femur to the ilium. In cases not requiring excision, immobility would be desired, were it attainable without the confinement of the patient, but this is impossible. Neither Davis' nor Sayre's splints attain it, nor can any other which allows the patient to walk about freely. Slight motion of the joint when it is firmly extended is of but little consequence. When no splint is used, the patient at each step brings the whole weight of the body to press and grind on the inflamed head of the femur, hence the pain and the real mischief which result from attempts at walking in such instances, but if a good splint is applied, the head of the bone is kept drawn a little off from the acetabular surface, and the weight of the body does little or no harm, as is evident from the fact that the patients no longer suffer from it. The great merit in the splints of Drs. Davis and Sayre is not in aiming at immobility, but in taking off effectually all pressure from the joint. Probably my splint allows a little more freedom to the limb than theirs, but I have yet seen no injury from it.

I think that my splint presents one advantage over the others, dependent upon the fact that it transmits the weight of the person directly to the ground. In Sayre's method, the weight is transmitted from the lower end of the instrument, through adhesive straps, to the skin of the leg or thigh, and thence through the foot to the ground. Now, as the skin is elastic, it yields a little at each step, and relaxes the extension, and hence, in some cases, it is difficult to tell whether a part of the weight is not still borne by the inflamed head of the femur. In my splint, I place the patient in a standing posture, and extend the instrument until the heel, in stepping, no longer presses the bottom of the shoe. I fear that Dr. Sayre's recent improvement, in which he uses a shorter splint, and applies his adhesive straps to the integument of the thigh, will be still more liable to the objection above mentioned, from the elasticity and mobility of the skin."

We do not propose to introduce a comparison between the several splints before the profession. We certainly hope each will save much suffering, and save to the afflicted a useful limb. It may be proper to observe that the introduction and manufacture of Dr. Sayre's and Dr. Andrews' splints are divested of all quackery. We believe this cannot be said of all splints before the profession.

On a former occasion, we have alluded to Dr. Sayre's improved splint, referred to above by Dr. Andrews, and, in our *Summary* for August 10th, we alluded to the fact that Dr. C. F. Taylor, of New York, claimed to have originated this improvement. As we supposed at the time, this claim is probably unfounded, and the honor of the improvement, if such it proves to be, probably belongs to Dr. Sayre.

OVARIOTOMY IN A PATIENT SEVENTY-FIVE YEARS OLD.

In the *American Medical Times* for August 10th, Dr. E. P. Bennett, of Danbury, Conn., reports a successful case of ovariotomy, performed upon a patient seventy-five years old. Anything concerning this operation is replete with interest to us, because of associations and circumstances unnecessary to detail, and we shall make no apology for the following extract:—"I made, as I usually do, a small incision, not over two inches in length, and exposed the sac, which I punctured with a trocar, and discharged its contents. I then passed a strong thread through this portion of the sac, drew it out until another cyst presented itself, which I also proceeded to puncture, and so continued, until I emptied seven or eight sacs of considerable size, when I succeeded in drawing it all out, tied it with a double ligature, and cut it off. I closed the wound with the silver suture, and dressed in the usual manner. She has recovered without any mishap, and is now able to walk about, enjoys her food, and is, in all respects, comfortable and happy. The fatal error, in my opinion, in regard to this operation, consists in surgeons still continuing to make large incisions through the peritoneum, and handling too roughly the abdominal viscera. This is entirely unnecessary, by proceeding in the manner above stated; if there are adhesions, you will find them, and generally they can be broken up with the finger, so that the large openings are entirely unnecessary and extremely hurtful, and, when abandoned, I feel quite confident that ovariotomy will come to be a successful operation, and the prejudices of the profession against it will cease. It has been recommended in this operation to do away with ligatures entirely, and use the écraseur, but I would not be willing to trust it. I do not look upon this new instrument with much favor, any way; on the whole, I would call it a decided retrograde in surgery; where I would not go with my knife, I would not, as a general rule, go at all. Although this lady had decided symptoms of organic changes in the heart, she took chloroform with impunity. I presume she is the oldest person on record upon whom the operation has been performed."

Dr. Bennett does not tell us whether or no he fixed the *pedicle* in the wound, and thus secured an external escape of the discharges consequent upon suppuration of the pedicle beyond the ligature. We think this should be done

where and whenever possible, and thus the peritoneal textures are protected against the irritation of suppurative discharges.

The subject of ovarian diseases and ovariotomy, is one upon which we would like to bore our readers with a long article; but, for the present, we must withhold the infliction. We believe the time is coming when these suffering fair ones—patient under suffering and want of hope—will stand as fair a chance for life and happiness, as the man whose thigh may require amputation. We leave this subject to be resumed hereafter.

FRACTURE OF THE SPINE WITH DISPLACEMENT, ETC.

In the *Berkshire Medical Journal*, for May, Dr. Timothy Childs reports a very interesting, and in some respects unique case of fracture of the spine with displacement—the patient lived *fifty-two years* after the accident and then died of double pneumonia. The accident by which the spine was fractured occurred in 1804—the patient falling *forty feet*, "striking the frozen ground upon his back and hips." . . . "A careful examination showed *depression* corresponding to the *twelfth dorsal vertebra*. In short, the patient exhibited the usual symptoms of fracture and dislocation of the spine, with compression of the medulla." In due time, and under treatment, the patient became comfortable, and died in August, 1857. "During this period, (fifty-two years,) though perfectly paraplegic, he married, had six children, and by his energy and industry amassed a little fortune for his family."

At the post mortem, "The injury was found to consist of fracture, with displacement of the twelfth dorsal vertebra, and *below this point the cord was completely atrophied.*" The case from its uniqueness is well worth quoting entire, for which, however, we have not room, but shall try to give the main points.

"I have said that the loss of both sensation and motion was at first complete below the site of the injury, and the *line of demarcation* was well defined. Within a year, however, *sensation* gradually returned to the front of the abdomen, the front of the scrotum, and the front of the thighs, down to within two and one-half inches of the knee-joint, and extending about half way round the thighs. At the same time the power of the extensor muscles of the leg, ('quadriceps extensor cruræ,') was recovered. This corresponds exactly to the distribution of the anterior crural nerve, its cutaneous branches bestowing sensation upon the integuments on the front and sides of the thigh, and its muscular branches supplying the 'quadriceps.' Says the patient, 'At the time of the injury, this insensibility passed nearly straight around me, but I soon perceived that sensation was gradually passing down in front. This at first was quite inconsiderable, and continued, though with less and less progress for nearly a year, when it had reached to within two or three inches of the knee, upon the top of the thigh, and the sensation was nearly complete upon the abdomen, and half-way down the thigh, as well as more than half-way around it, and I had acquired so much power in the muscles upon the top, that I could move and raise and draw up my legs upon the bed; whereas, at first, I could not even move them as I lay, but they appeared perfectly paralyzed and inactive—as much so as those upon the under side, which were then and still remain perfectly senseless, inactive, and useless. The sensation upon the abdomen is, I think, quite restored to its former state, even to the groin, as well as to the root of the penis and scrotum, from which it extends outward a little.'" The patient said of himself, as quoted by Dr. Childs: "I have frequently cut, burned, bruised, and injured them (my legs) in various ways without knowing it, till I discovered the wound by sight; and some ten or fifteen years ago I fell and broke both bones of the right leg entirely off, about four or five inches below the knee, and knew nothing of it till I attempted to get up, and I found it to swing about like a leather strap instead of keeping its place. I immediately took my bed, sent for a surgeon, had it bandaged, splintered, and dressed in the usual manner, and after lying on the bed with it the usual time I again got upon my crutches, and walked about with it as usual, without having experienced, during the whole time, the least sensation in it any more than in the crutch that I walked upon."

The alvine evacuations were uniformly in the form of dry and small scybalæ, and were removed, through all these many years, by mechanical means. Fortunately for the patient's peace of mind, he had no doubts of the legitimacy of his six children. Dr. Childs also had no doubts upon this point, as the children strongly resembled the father, and the mother always sustained an excellent character.

The Touch Cure.—A singular superstition exists in the northern provinces of France, that a person who is struck by lightning and not killed, possesses a miraculous power of healing by *touch* for a period of about forty days. A correspondent of the *Lancet* says that a little girl, eight years of age, at the village of Aubigny-au-Bae, was recently struck by lightning, but escaped with some trifling burns on the abdomen and legs. As soon as the news of the accident and escape transpired, all the lame, blind, and diseased of the vicinity flocked to her to be touched.

THE MEDICAL AND SURGICAL REPORTER.

S. W. BUTLER, M. D.
R. J. LEVIS, M. D. } Editors and Prop's.
L. C. Butler, M. D., Assistant Editor.

PHILADELPHIA, SATURDAY, SEPTEMBER 7, 1861.

MEDICAL TEACHING THE COMING WINTER.

As the time approaches when the medical schools usually begin their regular winter sessions, we shall soon know what effect the distracted state of the country is going to have on medical teaching. With that large class of professors, who hold their chairs more for the love of teaching, the honor of the position, or, as a stepping-stone to obtain private practice, than for any actual emolument resulting from the sale of tickets, this will be a matter of compatively small consequence, as the main objects expected to be gained by holding the chair are attained, whether the classes are large or small. But, there are some professors, especially in the schools in our larger cities, whose main dependence for a livelihood is on the income they derive from their chairs. With these it will be a matter of considerable importance if this department of education should, in common with many of the business interests of the country, be prostrated.

It is true, there are influences that will strongly tend to diminish the classes the coming winter. First, and we think chiefly, the Southern supply of students will be, to all appearances, almost, if not quite, cut off entirely. The schools, whose patronage was derived principally from the Southern States, will, therefore, be likely to suffer most. Then the depression of business, and consequent scarcity of money, and the fact that many students have probably enlisted into the army, will operate to effect a still further reduction in the size of the classes. And, finally, the prevalent feeling in the schools that the classes will be small, which seems to have paralyzed them to a certain degree, so that they have not used their ordinary means of securing students, will inevitably tend in the same direction.

But there are, on the other hand, some influences which will have a bearing the other way. The exigencies of the times are calling into the public service, on land and sea, between one and two thousand surgeons in the United States service. Those that are taken from private practice to supply this want, will most likely be persons of intelligence, and who were successfully engaged in practice in the communities in which they resided. Their places will need to be filled. Besides, there will be constant drafts on the profession to supply the demands of the Government. Then the ordinary law of supply and demand will require that the ranks of the profession be recruited, certainly to the extent of two per cent. of the whole number of physicians—say 25,000—in the States with which communication is uninterrupted. On the whole, we do not see but the wants of the country will require fifteen hundred or two thousand physicians next spring, and this number of graduates from the different schools ought to be the basis of very fair, not to say full classes the ensuing winter. The enormous expenditures of the Government, the immense agricultural yield of the past season, which finds a ready market at home and abroad, the revival of business, and the gradual adaptation of the country to the existing state of affairs, will have the effect of preventing as much stringency in the money market as has been anticipated by some. We shall not, therefore, be surprised if the different medical schools of the country should have very fair classes the coming winter.

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EDITORIAL NOTES AND COMMENTS.

Homœopaths in the Army.—Two homœopaths are announced as appointed to the positions of Assistant Surgeons of Volunteer regiments formed in this city. These appointments are by the authority claimed by colonels of regiments, which, being mustered directly into the service of the United States, are not under State control, and their medical appointments do not come under the medical department of the State of Pennsylvania, and they are not supplied with instruments, etc., from the State.

If these appointments are confirmed, the responsibility will rest with the medical department at Washington. The medical authorities there say that they examine all who go to Washington. If so, the examination, judging

from the character of some who have retained similar appointments, must be a farce, behind the scenes of which, political or military tricksters control medical appointments. The manner in which the Government at Washington has managed some of the business of medical appointments in the army is more flavored with the stink of small politics than redolent of the honest air of science.

One of the homœopaths alluded to, who is now about to go to Washington with a regiment, presented himself before the last session of the Examining Board of the Medical Department of the State of Pennsylvania, and was *rejected*. The medical authorities at Washington, when informed of the public announcement of this same individual as an assistant surgeon of a regiment about to be mustered into the United States service, replied that the matter had been referred by the Surgeon-General, to the Medical Director of the Military Division in which the homœopath was supposed to be serving. This reference of the affair looks as if it were with the object of merely shifting the responsibility to irresponsible parties.

CONSULTATION WITH HOMŒOPATHS.

In the last issue of this journal we presented some comments on Mr. Fergusson's attempt to justify his course in holding professional intercourse with quacks. It is hoped that these remarks coincided with the general sentiment of the profession of this country in relation to the ethics of professional consultation. The medical profession can only treat with the amenities of professional courtesy in consultation, those who hold allegiance to its ethics as in spirit expressed in the code of the American Medical Association; avoiding the practice of any exclusive dogma, and acting honestly as the medium of science in its application to the amelioration of human suffering.

Another letter from Mr. Fergusson has been published in the last received weekly number of the *Lancet*, and we at once give Mr. Fergusson credit for his new resolution, and promise not to be guilty of a continuance of his reprehensible conduct. We would give him more credit if his letter was an open avowal of error, and indicated a repentance for past improprieties, but it is evident, from its wording, that the distinguished gentleman was more influenced by *outside pressure*, in changing his determination as to conduct, than by an honest conviction of having done wrong. He merely declares that in deference to the general feelings of the profession he will change his course of conduct in reference to consultation with quacks.

It is to be regretted that the fame of one, whose scientific reputation is so exalted, should be blemished by a disregard for those ethical rules, which bind the profession in a close allegiance, and make it present an impenetrable front against the entrance of quackery in any form.

Mr. Fergusson's letter is appended:

To the Editor of the Lancet:

Sir: The explanation I offered in your journal of the 20th ultimo, regarding my alleged communion with homœopaths, not appearing satisfactory to the profession, I beg to state that *for the future I shall feel it incumbent on me to decline any meeting, or so-called consultation, with homœopathic practitioners.*

Enjoying a large share of professional confidence, and holding various important public appointments, I should consider myself unworthy of such honor, were I, at the present time, to offer any objections to the expressed wishes and declared opinions of my professional brethren.

I am, sir, your obedient servant,

Wm. Fergusson, F. R. C. S.

George-street, Hanover-sqaure, Aug., 1861.

The Medical Department of Pennsylvania College.—In our notice of this institution last week, we committed an error in attributing the resignation of the faculty to a misunderstanding with the Trustees of the *parent* institution in regard to the expenses of the building. The difficulty was with the *Board of Trustees of the Medical Department in this city* who control the property.

We trust that this faculty will be re-organized with as little change as possible. This has been an efficient college, and is deserving of eminent success.

HEALTH OF THE TROOPS AT ALEXANDRIA, VA.

Dr. C. E. Halsey, Assistant Surgeon of the Fortieth (Mozart) Regiment, N. Y. S. V., stationed at Alexandria, Va., under date of Aug. 29th, writes:

"During the past week, but seventy-five names have been entered on the sick list, and a maximum of those were cases of a mild character, requiring little treatment. A number have been quite aggravated, such as dysentery, diarrhœa, rheumatism, typhoid, and continued fevers. Also a few slight injuries,

one snake-bite, etc. Ten patients have been sent to the general hospital, Georgetown.

"Rainy days, two; winds, light; thermometer, 74° mean; nights, cool."

The healthy condition of the regiment he attributes to the well-chosen grounds for encampment, and also to the strict sanitary rules enjoined.

A Washington Correspondent, a few weeks ago, made the following very appropriate observations on one effect of camp life on our volunteer soldiery: "One good result of this war will be observed in a new physical development of the slender American type of mankind. Following close upon the inception of the demand for muscular reform, here comes a great national crisis, calling hundreds of thousands of our youths away from the sickly shop and office to such a course of gymnastic and hygienic training as could never be artificially imitated, since it involves for the time a complete change of life and purpose. Whoever inspects the perfect physical condition of the sixty thousand volunteers here stationed, will see that the majority of them—the chances of war set aside—are securing health that will not only strengthen and prolong their days, but course through the systems of their descendents, even unto the third and fourth generation."

Correspondence.

A CASE OF VARIOLOID,

Somers Point, N. J., Sept., 1861.

June 11th, 1861, I was called to see Mrs. H., who was supposed to be in premature labor. She had been ill two days, and, continuing to grow worse, had called for medical aid—complained of violent pains in her back, which extended down into the extremities; great restlessness and severe headache. Her female attendants, thinking to afford her some relief, had applied sinapisms the entire length of the thighs. Perceiving that her pains were not those resulting from labor, I left her a solution of morphia, to be taken at intervals, indicated by her pains, in connection with veratrum viride, to quiet the heart's action. The following morning found her easy, and covered with an eruption, which proved to be varioloid.

The usual course of treatment was pursued, and all went on well—the injudiciously-applied blisters being the chief annoyance. The chlorate of potash proved very beneficial to the mucous surfaces. Upon the seventh day from the attack, the eruption began speedily to dry up, so that by the end of the eighth but very little remained; on the tenth, a new crop, fewer in numbers, but much larger than its precedent, was ushered in without any premonitory ymptoms, save a slight headache. The disease was communicated to her by her husband, a sailor, on a visit home, who was entirely ignorant of the existence of the disease in his own person. He had felt somewhat indisposed a few days previous to his coming, and a few pustules made their appearance in his hair, which the wife punctured upon his arrival. The period of incubation, in this case, was fourteen days.

The only object of any interest, which is claimed in the above case, is, that it is another instance of the occurrence of a "second crop," which fact seems to be doubted by some writers.

J. B. SOMERS.

Vermont, August 31, 1861.

MESSRS. EDITORS:—You will hardly expect many items of medical news from the quiet agricultural Green Mountain State, and yet I question whether there is any locality where some facts may not be gathered which will interest the thousands of readers of the REPORTER. As everywhere, so here the "WAR" is uppermost on the minds of everybody, and "What is the news from the seat of war?" is a question I have been oftener asked than I could answer. Indeed, that question is vastly easier asked than answered—such is the complete surveillance under which the news-carriers are now placed. Speaking of war, reminds me to say that Dr. S. J. Allen, of White Run Junction, has been appointed Surgeon, and Dr. Willard A. Childs, of Castleton, Assistant Surgeon of the Fourth Vermont Regiment, now organizing for the war. Dr. Childs occupied the same position in the First Regiment, which has just been discharged, and his reappointment is not only a compliment to himself, but a rebuke to the surgeon who was his associate in that regiment.

Dr. William P. Russell, of Middlebury, has also received the appointment of Surgeon, and Dr. Henry C. Shaw, of Waitsfield, that of Assistant Surgeon in the Fifth Regiment. These are all excellent appointments, and will do honor to the State and to the profession.

A letter from Capt. Drew, of the Second Vermont Regiment, who is a prisoner at Richmond, Va., states that he owes his life to Dr. Kennedy, of New Orleans, who, when he was suffer-

ing terribly from cramp in the stomach, accompanied with vomitings, kindly took him to a hotel instead of to the hard floor of a prison, where he could not have lived twenty-four hours. Such instances of sympathy among those whose business it is to alleviate the woes of humanity are not unexpected, but are worthy of record in these perilous days.

The mania for quackery in this region, is again raging. It seems to be periodical in its attacks. A few years ago, Thomsonianism overran this portion of Vermont, as well as other States. Having run its race, it disappeared, leaving behind it a long train of evils, which time and the skill of the regular practitioner had done much to remedy. The people were rife for whatever "new thing" might appear; and when the "negro doctor" dropped down in their midst, the quack mania revived in all its former vigor. The lame, the halt, the blind, the sick, with all manner of diseases, flocked to this new pool of Siloam. The "doctor" had visited the London hospitals, (as subwaiter, perhaps,) had practiced with the best physicians of the country, (as groom, probably,) and there was no disease he could not cure. Indeed, under the magic influence of his touching and rubbing process, the soothing effect of his "thongs," one of his favorite prescriptions to excite the muscular and nervous systems, those who had been bed-ridden for years, went walking and leaping away from the pool, chanting the doctor's praises. The "news" flew on the wings of the wind, and the "whites" are all agog to pay tribute to the "negro." From all quarters, the sick, and those who fancy themselves sick, rush in, until two "hospitals" are now filled. All are certainly to be cured. Strange to say, some die; but this only proves the efficiency of the treatment pursued, and of the remedies given, but offers no check to the enthusiasm awakened in the doctor's behalf. Some are cruel enough to insinuate that "he" knows nothing about medical science, (and they are probably correct;) and some say he disappeared in a mysterious manner from his last place of abode; but others are quite sure he knows everything, and, besides, his manipulations in the examination of his patients are quite agreeable and soothing, and so the tide sets yet strongly in his favor. The "negro doctor" is all the toast. He has performed no *permanent* "cure" that is wonderful, but he holds out to all the glittering bait of hope, and distressed, afflicted humanity, is always eager to grasp it.

Green Mountain.

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Monument to Larrey the Elder.—The Emperor of France, has, by a recent decree, authorized the erection at Tarbes, the native place of Larrey, of a statute of the celebrated Surgeon-in-chief of the armies of the first Empire, of whom the first Napoleon was wont to speak as "the most honest man he had ever known."

NEWS AND MISCELLANY.

Soldiers' Rations.—The following statement has been published by the Commissary General:

Office Commissary-General Subsistence, Washington, Aug. 19, 1861.—From the numerous letters which have been referred to this office, complaining of the *want of food*, and the *bad quality* of that furnished by the Commissariat to the volunteers, I am led to believe that a brief statement of the truth may give satisfaction to the public mind.

Before the action of the last Congress, the ration (used by the army for many years) furnished to the volunteers was as follows:

¾ pound of pork or bacon, or 1¼ pound of fresh or salt beef; 18 ounces of bread or flour, or 12 ounces of pilot bread, or 1¼ pound of cornmeal.

To 100 *Rations.*—8 quarts of beans or pease, or 10 pounds of rice, or 140 ounces of dessicated potatoes, or 88 ounces of dessicated mixed vegetables; 10 pounds of coffee; 15 pounds of sugar; 4 quarts of vinegar; 1¼ pound of adamantine candles; 4 pounds of soap, and 2 quarts of salt.

This ration has been found, by long experience in the regular army, to be ample.

Congress, by an act of the last session, increased this ration, until it is now as follows:

¾ pound of pork or bacon, or 1¼ pound of fresh or salted beef; 22 ounces of bread or flour, or 1 pound of pilot bread.

To 100 *Rations.*—8 quarts of beans, 10 pounds of rice or hominy, and 1 pound of potatoes, three times a week, or a substitute therefor; 10 pounds of coffee, 15 pounds of sugar, 4 quarts of vinegar, 1¼ pound of adamantine candles, 4 pounds of soap, and 2 quarts of salt.

Extra issues of molasses are occasionally made.

This ration, if cared for, and properly cooked, is *more than can be eaten;* and this ration *the Government is ready to furnish.*

The method of procuring it for the regiments is simple:—Each Captain of a company makes to his Colonel a return, stating the number of men in his company, and the number of days drawn for, signed by him. These company returns are consolidated by the regimental Quartermaster, and signed by the Colonel. This return is an order on the depot or Brigade Commissary for that quantity of stores; and it is the duty of the Regimental Quartermaster to see that he receives the full amount, and that it is all of good quality.

When the stores reach the regiment, it is the duty of each Captain to see that his company receive their due, as drawn for by him on his return, and that the quality is good.

If the regimental Quartermaster and Captains attend to their duty, the men *must* receive their full allowance as set forth in the ration above, and not an article but of good quality.

The Government has on hand ample supplies of the very best quality, and is desirous of doing full justice to the volunteers. If the volunteers do not receive, the fault is that of their own officers.

J. P. TAYLOR,
A. C. G. Sub.

Surgeons appointed by the Governor.—The following appointments of Surgeons and Assistant Surgeons have been made by Governor Curtin:

Surgeons.

Dr. E. W. Bailey, New Bloomfield, Pa.
" N. F. Marsh, Honesdale, "
" Wm. H. Gobrecht, Philadelphia, "
" C. F. H. Campbell, " "
" Samuel G. Lane, Chambersburg, "
" John H. Fromberger, Bristol, Bucks Co., Pa.
" R. M. S. Jackson, Cresson, Cambria Co., Pa.
" A. B. Meylert, Scranton, Luzerne Co., Pa.
" W. S. Woods, Pittsburgh, Pa.

Assistant Surgeons.

Dr. J. H. Sheetz, Dale, Berks Co., Pa.
" E. Donnelly, Philadelphia, "
" J. B. Finney, Harrisburg, "
" J. W. Lyman, Lock Haven, "
" J. F. Huber, Lancaster, "
" James R. Reilly, Harrisburg, "
" W. C. Rodgers, Norristown, "
" J. P. Vickers, West Chester, "
" H. S. Colson, Philadelphia, "
" Ambrose J. Herr, Strasburg, "

Brigade Surgeons.—The following is the official list of Brigade Surgeons appointed under the new law, after examination by the Medical Board. The date of appointment is August 3, with all but the last five: George H. Lyman, Massachusetts; F. H. Hamilton, New York; Henry S. Hewett, New York; J. H. Brinton, Pennsylvania; John A. Lidell, New York; John C. Dalton, Jr., New York; Geo. Suckley, New York; Henry Bryant, Massachusetts; P. W. Ellsworth, Connecticut; Luther V. Bell, Massachusetts; S. W. Gross, Pennsylvania; David Prince, Illinois; A. H. Hoff, New York; W. H. Church, New York; Joseph W. Freer, Illinois; Rufus H. Gilbert, New York; J. E. Quidor, New Jersey; Charles McMillan, New York; Charles O'Leary, Ohio; J. G. F. Holston, District of Columbia; A. B. Campbell, Pennsylvania; J. V. Z. Blaney, Illinois; Thos. Sim, Illinois; J. S. Bobbs, Indiana: Peter Pineo, Massachusetts; William E. Waters, District of Columbia; O. Martin, Massachusetts; J. H. Rauch, Illinois; William B. Stuart, Indiana; N. R. Derby, Pennsylvania; Daniel McRuer, Maine; S. R. Haven, Illinois; A. E. Stocker, Pennsylvania; J. Owen, Pennsylvania; W. C. Thompson, Indiana; James King, Pennsylvania; T. Rush Spencer, New York; J. D. Robinson, Ohio; William Clendenin, Ohio; George G. Shumard, Ohio.—Total, 40.

Medical Directors.—The following appointments have been made: Surgeon Charles S. Tripler, Medical Director of the Military Department under Maj.-Gen. McClellan; Surgeon J. M. Cuyler, Medical Director of the Military Department under Gen. Anderson; Surgeon S. G. J. Decamp, Medical Director of the Military Department under Maj.-Gen. Fremont.

No Homœopathy for the Poor.—The recent attempt to appoint homœopaths, as physicians, under the Guardians of the Poor of the city, has failed.

The Voluntary Retarding of Seminal Emissions—A Theory!—A sensation book for popular reading, recently published, called the "Medical Protector," presents the following:

"By suppressing the discharge of the semen, the force of the electricity, missing its natural means of escape, is expended upon the body. The organs that used to exercise their functions, being brought to a dead stop, the pent-up electricity, generated by friction and thrown back by suppression, is expended on the nerves, organs, and machinery of the body, to their great and permanent injury, eventually destroying both health and life."

A Sanitary Museum.—An effort is being made in London for the establishing of a Sanitary Museum for the collection and exhibition of sanitary appliances.

Renunciation of Homœopathy.—Three other homœopathic practitioners of New York, emulating the example of Dr. John C. Peters, have published over their signatures, in the *Medical Times*, a renunciation of their faith in the doctrines propounded by Hahnemann.

Improvement in the Illuminating Power of Gas.—Mr. Shepard, civil engineer, has introduced a scheme for raising the illuminating power of ordinary coal gas, by making the gas pass over coal naptha contained in a chamber adapted to the supply-pipe; the gas thus gets charged with hydro-carbons, and burns with greatly increased brilliancy. It is said that by the use of this invention fully one-half the quantity of gas commonly used may be saved without losing light, whilst it is easy to raise the illuminating power of poor gas from that of nine or ten candles to twenty. This method of raising the lighting value of a given quantity of gas promises, in our opinion, to be of service beyond merely economizing it. In the use of gas for domestic lighting, it will be no small advantage to be able to diminish the serious sanitary objections arising from the generation of injurious products of combustion.—*Lancet.*

The Heat and Laziness.—It is an old adage, that lazy people give themselves the most trouble, and querulous people most suffering; and so it seems that people who give way the most to heat and thirst, are the worst sufferers from

both. The *Times'* correspondent at Turin after describing the hot, still, furnace-like air, stirred by no breeze day or night, says, speaking of the citizes, "to bear the heat is business enough for most men. They drag themselves at their own snails pace under the porticos, loll upon stools before the *café* shop-door, they call for more ice and iced water." But he continues, "so far as my experience goes, I think excessive heat greatly beneficial to the human frame, it must be fought, I believe, by the same weapon with which cold is overcome—by strong, manly exertion. If I give in to it, like most of my neighbors, I am soon languid, listless, and so utterly prostrate as hardly to have strength to lift the cooling ice to my lips; but if I drink wine, eschew water, take my meals regularly without consulting appetite, then move about at my usual brisk pace—take the sunny or shady side indifferently—if I determine no longer not to mind, but to despise the heat and defy it, a new life seems to rise within me. Nor am I by any means an exception, or only in so far that my battling with the summer is a matter of choice with me; but I see men splitting stones along the sunny highway, I see carters walking stoutly beside their teams, I see troops both foot and horse, marching at their wonted pace; they seem all of them as strong and merry as in December, only a little more flushed, and one may wager they are all the healthier for being somewhat leaner and lighter."—*London Med. Times.*

Deaths in London in 1660 *and* 1860.—The Registrar-General's Report for 1859 contrasts the statistics of disease, so far as we are possessed of them, of two centuries back with those of the present day. It takes 100,000 people of the London of 1660-79, and compares them with the same number of 1859. The same presents at the two different dates respectively 357 and 42 annual deaths by small-pox; 759 and 227 by fever, ague, scarltina, quinsy, and croup; 1,070 and 611 by consumption and disease of the breathing organs; 763 and 8 by dysentery; 142 and 2 by scurvy; 298 and 26 by dropsy; 1,175 and 136 children's deaths from convulsions and teething; and 86 and 17 women's deaths in child-bearing. All this decrease in modern figures is over and above the decrease which we gain when we count the deaths of the Great Plague. In one article, however—that of disease of the brain, apoplexy, paralysis, epilepsy—the older figures have the advantage of the latter, being 57 then to 151 now. It is deserving of notice that the only form of disease which has gained ground in the country is that connected with the head, which exceeds now by nearly 3 to 1 the amount of the same form of disease at the former date, as the figures above show. This is, perhaps, the result of the very civilization and mental growth to which we are indebted for the improvements in every other sanitary quarter.

MARRIED.

Martin—Balliet.—At Allentown, Pa., Thursday morning, August 29th, by Rev. Mr. Schmucker, Dr. Edwin G. Martin, and Miss Fannie S. Balliet, all of Allentown.

Hay—Bradford.—At York, Pa., on Tuesday morning, 27th inst., by the Rev. A. H. Lochman, D.D., Thomas Hay, M.D., of this city, formerly of York, Pa., and Mary B. Bradford, of the latter place.

Peter—Bigler.—On the 22d ultimo, by the Rev. John Farquhar, at the residence of the bride's father, Benjamin F. Peter, M.D., and Miss Sarah Jane Bigler, both of Chanceford township, York county, Pa.

DIED.

Pancoast.—On Friday evening, 30th August, Charles H. Pancoast, son of Dr. Joseph Pancoast, of this city.

To Correspondents.

J. E. H., Pennsylvania.—The Board of Medical Examiners of this State meet at the call of the Surgeon-General, Dr. H. H. Smith. Due notice will be given through the Reporter of the time of meeting. Tripler & Blackman's work has been sent by mail.

D. M.—The postural treatment of prolapse of the funis is simply to place the patient on her elbows and knees, then return the cord, and retaining the position until the next pain wedges the head down into the pelvis so forcibly as to prevent further escape.

E. S.—Barwell on the Joints has just been published by Blanchard & Lea. It is an octavo of 463 pages. A new and enlarged edition of I. Baker Brown's work on the surgical treatment of some affections, which are the result of parturition, has been published in London. There is no American reprint of it.

B. S.—There has been but little positive evidence presented of the galactogogue properties of leaves of the castor oil plant.

W. W. G.—The new edition of the United States Pharmacopœia is now being prepared, but the work will not be ready for issue before some time next year.

J. T. R., Wisconsin.—Tripler and Blackman on Military Surgery, has been sent by mail.

☞ In looking over our stock of Reporter's on hand, we find a surplus of some numbers, of which some of our collaborators may desire to possess the copies containing their communications. Any such who will send us their address, enclosing one dollar, shall be supplied with such number of copies as will satisfy them. First sent first served. tf.

Communications Received.

District of Columbia—Drs. J. F. Kennedy, C. G. Halsey. *Massachusetts*—Dr. B. Fearing. *Maryland*—Dr. J. W. Lodge, Dr. L. J. Evans, with encl. *Pennsylvania*—Dr. F. Scoffin, Dr. J. E. Hamilton, with encl., Drs. R. Gardiner, Traill Green, Y. S. Gardner, P. R. Wagenseller, A. J. Martin, A. B. Dill. *New York*—W. A. Townsend, Esq., Dr. C. S. Richardson, with encl., Drs. G. K. Smith, S. W. Francis. *Kansas*—Dr. A. A. Woodhull. *Ohio*—Dr. A. L. Carrick, J. A. Myers. *Vermont*—Per H. B. Cross, Drs. P. Maxfield, W. S. Hopkins, M. O. Porter, each with encl., Dr. L. C. Butler. *New Jersey*—Dr. J. B. Somers. *Wisconsin*—Dr. J. T. Reeve, with encl. *Michigan*—Dr. E. Batwell. *Indiana*—Dr. W. Dickey, with encl.

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